RADIO-PERCEPTION

THE JOURNAL OF THE
BRITISH SOCIETY OF DOWSERS

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BRITISH SOCIETY OF DOWSERS

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OBJECTS OF THE SOCIETY

(*a*) To encourage the study of all matters connected with the perception of radiation by the human organism with or without an instrument.

(*b*) To spread information amongst members, by means of a journal, lectures and other means, about the use of dowsing for geophysical, medical and agricultural and other purposes and for tracing objects animate or inanimate.

(*c*) To keep a register of dowsers for water, minerals, oil, and for other purposes.

RULES OF THE SOCIETY

I.—Membership.

The Society is open to all persons interested in radiation-perception. The Council has power to appoint honorary members.

II.—Entrance Fee and Subscription.

(*a*) The entrance fee for permanent residents in Great Britain is 10/6, and the annual subscription is 10/-.

(*b*) The entrance fee for permanent residents overseas is 10/6, and the annual subscription 5/-.

The subscriptions under (*a*) and (*b*) may be compounded for by the payment of a Life Member's subscription of six guineas or of three guineas respectively.

The Council is empowered to decide any special cases in connection with the payment of subscriptions.

III.—Management.

The Society will be managed by a Council consisting of a President, who will act as Chairman, and five members, one of whom will act as Treasurer and Secretary.

The President and members will be replaced as necessary by the Council, appointments being confirmed at a General Meeting.

All questions regarding the publication of the journal, lectures, meetings, allocations of funds to promote the objects and interests of the Society, will be settled by the Council.

Decisions of the Council will be arrived at by correspondence if necessary, the facts being recorded in the Minute Book.

Decisions will be decided by a majority vote, the Chairman having a casting vote.

The Council has power to co-opt other members for special purposes.

IV.— Accounts.

The financial year will be from July 1st to June 30th.

Audited accounts will be published annually within two months after the end of the financial year.

V.—General Meeting.

A General Meeting will be held annually, and other meetings when considered necessary by the Council.

JOURNAL OF THE
BRITISH SOCIETY OF DOWSERS
Vol. VI. No. 52 June, 1946

NOTICES

A lecture, entitled "A Brief Outline of Geology," was given to the Society by Mr. O. F. Parker, A.R.S.M., on February 6th.

The Editor regrets that, owing to the large number of drawings and diagrams with which the lecture was illustrated, it is not possible to publish it in the *Journal*. A type-written copy with the illustrations has been deposited in the B.S.D. Library, and can be borrowed by members.

* * * * *

The first number of La Revue Internationale de Radiesthésie, the official organ of the international centre for the scientific study of Radiesthesie

The objects of the Revue are :—

(1) To put Radiesthesie on a scientific basis.
(2) To establish connection with radiesthesists the world over.
(3) To present Radiesthesie to the general public.

During the first year the Revue will be published quarterly; the subscription for purchasers in England will be 250 francs (Belgian) for one year, and 150 francs for six months. Orders should be sent to —

Administration de la Revue Internationale de Radiesthésie, 322 Avenue de Tervueren, Brussels.

* * * * *

The following books have been received from Italy :

Radiestesia, by E. Vinci—Giulio Vannini, Brescia, 1944.
Radiestesia, Elementi di Elettrometria Umana, by L. Filonardi-Giulio Vannini, Brescia, 1942.

Also the first number, that of March, 1946, of *Rivista Italiana di Radiestesia*, edited by E. Vinci.

The Editor would be glad to hear from anyone who would undertake to review them.

* * * * *

The Editor would be obliged if anyone who has a copy of *The Physics of the Divining Rod*, *The Modern Dowser*, *Water Diviners and their Methods* or *The Divining Rod* to dispose of would communicate with him.

* * * * *

A copy of the *second* edition of *The Modern Dowser* is required by the Publishers to assist in the preparation of a third edition. Would anyone with a copy to dispose of kindly communicate with the Editor.

A member wishes to obtain Vol. I of the *B.S.D. Journal*, or any early numbers. Would anyone who has copies to dispose of kindly inform the Editor.

* * * * *

A Title Page and Contents for Vol. V have been printed, and will be supplied by the Editor on application.

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All copies of *Dowsing*, by Captain W. H. Trinder, have now been sold.

The Editor would be glad to hear from anyone who has a copy to dispose of.

* * * * *

The price of new *Journals* to members, in excess of the free number, and of old *Journals*, is 1/- and 9d. respectively.

Six free copies of the *Journal* will be given, on request, to writers of articles in it, in addition to the usual copy.

* * * * *

Pendulum Play, the beginner's instruction manual, is obtainable by members at 4/- instead of the usual 5/- retail price, from the author, Mr. N. Macbeth, Moulsham Mill House, Chelmsford, Essex.

* * * * *

Mrs. Kingsley Tarpey's little book, *Healing by Radiesthesia*, which was reviewed in the March *Journal*, can be obtained from the Forum Publishing Company, 64 Winifred Road, Coulsdon, Surrey; or from Mrs. Kingsley Tarpey, 35 Downside Crescent, Belsize Park, N.W.3; price 2/6, post free.

* * * * *

A member desires to dispose of a Mansfield Water Finding Instrument, medium-sized type, reading to 500ft., complete with two tripods, in stout leather cases—original cost £150. He has found it useful for checking results obtained by dowsing methods The price required is £50. Anyone interested should apply to Major C. A. Pogson, M.C., 1 The Drive, Hove 3, Sussex.

* * * * *

The following Divining Rods can be obtained from Mr. Guy Underwood, Belcombe House, Bradford-on-Avon, Wilts:—

OASIS Pocket Divining Rod (in case), 10/-.

Ditto, larger "Supersensitive" Type, 21/-.

ROTOGAUGE Estimating Rod, 12/6.

Also

Reprints of four articles and a lecture on dowsing published in the *B.S.D. Journal*, price 6/- the set.

All post free, cash with order, and subject to a discount of 20 per cent. (4/- in the pound) to members of the B.S.D.

Whalebone strips, cut to the following dimensions, can be obtained from Messrs. Devine and Co. Ltd., St. Stephen's Road, Old Ford, London, E.3, at the price of 5/- per rod (2 strips).

Flat: 12in. long x 7mm. wide x 2mm. or 3mm. thick.

Circular: 12in. long x 3mm. or 4mm. in diameter.

Square: 12in. long x 3 mm. or 4mm. square section.

Rods made of strips of these sizes have been tested by a number of dowsers, and are recommended by the B.S.D. Investigation Committee.

Spherical whale-ivory pendulums can also be supplied at 8/- each. Prices for rods and pendulums prepared to specific dimensions are given on request.

All prices are post free in U.K.

* * * * *

The Society's badges can be obtained from the Honorary Secretary. Owing to the increased cost of postage, the price is now 1/3 post free.

* * * * *

Communications for the Editor, and inquiries, should be sent to Colonel A. H. Bell, Portugal Street, London, W.C.2.

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PART ONE

COSMIC RADIATIONS AND DOWSING

By T. BEDFORD FRANKLIN, M.A., F.R.S.E.

By nature a theorist, for many years I have attempted to approach the subject of dowsing from the theoretical rather than the practical angle. In most scientific investigations the theorist, after he has thoroughly assimilated all the known scientific facts bearing on the problem, looks forward a stage further and propounds some new hypothesis. He then takes up the role of experimenter, and tests out his own theory.

But in dowsing the theorist suffers from the disadvantage of not being able to test his own theory, for he is biassed from the start; dowsing, being a complex of physical and psychical abilities, cannot be done successfully in a biassed frame of mind. And so my theories have had to be tested by others, an unequal division of labour, for the experimenter often has to devise special apparatus and spend many hours on slow and painstaking work in which he has no certainty of success.

My colleague, J. C. Maby, knows only too well what it means to be the experimental judge of my theories. In his laboratory he has tested and confirmed some of these and disproved others; but one—the connection between cosmic radiation and dowsing—was beyond the scope of any ordinary laboratory and has only been tested incidentally as part of the work done on the atomic bomb, an extreme chance that even the most optimistic theorist could hardly have hoped for seven years ago.

The hypothesis that cosmic radiation was the prime cause of the dowser's reactions has always attracted me. As long ago as May, 1939, I suggested on page 388 of *The Physics of the Divining Rod* that some form of cosmic radiation provided, by its interaction with conductors above and below ground, both corpuscular and wave radiations which produced the dowser's reactions.

Again, in my article "Cosmic Radiation" in *B.S.D.J.*, V, 37, September, 1942—in which I gave a short summary of the knowledge of cosmic radiation at the time—I reiterated my belief that this cosmic radiation, by its passage through matter, caused electronic oscillations of a frequency dependent on the atomic number of the element involved, and that these oscillations affected the dowser.

I was convinced of the existence of these oscillations by some theoretical work I did in 1940, when I attempted to forecast the beat frequencies due to the heterodyning of the cosmic radiation waves and the waves from the various elements. When the difference in frequency of two sets of waves is not very great,

the two systems will produce beats. Each set by itself may be of too high frequency to affect our body or instruments, yet they combine to give beats which are slow enough to do so.

As the exact frequency of either of these sets was unknown to me, I had to make a reasonable guess, and was lucky enough to do so with sufficient accuracy to enable Maby to substantiate these beat frequencies in his laboratory.

Apart from theory, their existence seemed essential, for without them dowsing appeared impossible. For the dowser only finds singularities—Faults, where two different rocks abut on each other; a stream in the rock; conductors in a relatively non-conducting medium and so on. Probably these can only be discovered by the beats due to the slightly different frequencies of these singularities and those of their surroundings.

Unfortunately, the beat frequencies give us no information about the frequencies of the component radiations that produce these beats. Nor did the experiment prove that cosmic radiation was the prime source of the dowser's reactions. That did not seem to be amenable to experimental test, until a recent article in the *New York Herald Tribune* by J. J. O'Neil appeared on October 21st, 1945.

The article describes the newest and largest Cyclotron, or electron accelerator, built by the G.E.C., Schenectady, N.Y., during the war, and named the Belatron. This apparatus, which weighs 300 tons and cannot be approached when in operation, applies a super-intense magnetic field—using 25,000 kilowatts of energy—to a prefabricated stream of electrons, which it accelerates almost up to the velocity of light.

These accelerated electrons, of 100,000,000 volts energisation, are made to impinge on a tungsten target which emits, under their impact, a two-inch-thick beam of super-hard X-rays. These, in their turn, become transformed into positrons and negatrons on absorption by matter, and the resultant rays and particles appear to correspond to natural cosmic rays and their secondaries.

This is the first time that such *artificial* cosmic rays have been produced, with their characteristic shower formation, in a Wilson cloud chamber, and the birth of positron-negatron electron pairs. In their energy-inflated state, after extreme magnetic acceleration, the electrons appear to be unable to hold all the energy given to them, and give out intermittent blasts of excess energy at regular intervals. *These emissions constitute ultra-short radio waves in the infra-red region.*

This proof of emission of radio waves by matter under cosmic ray bombardment, in accordance with my postulated theory, is very encouraging. But if the frequency of these waves does depend, as appears to be proved by experiment, on the atomic number of the matter involved, then it seems certain that the dowser, or any instrument to take his place, is bombarded by waves

of many different frequencies at the same time, and the problem of finding the exact objective for which he is searching becomes a matter of tuning.

The tricky behaviour and disappointing results of most of our present automatic instruments may well be due to their lack of tuning and to the interference they receive from waves of different frequencies to those upon which we wish to concentrate. Could an instrument be devised which would be selective to the waves from our objective and its surroundings only and would cut out all others, then, at last, we might be near the end of our quest for a simple automatic instrument to corroborate the dowser's results.

The expert dowser, from his sensitivity, has mobility, and his ease and speed of working will always have advantages over any machine; these qualities, coupled with his ability to tune himself by samples and other means, make him the ideal operator. But, I believe, many dowsers would be glad of a simple machine—unaffected by ill-health, fatigue, weather conditions or auto-suggestion—which he could use as a check on his work. For dowsers, on their off days, may be likened to owners of old-time unselective wireless sets, who were condemend to listen to a jumble of programmes from several stations at once, and who waited anxiously for the day when, by a turn of a knob, they would be able to cut out the offending waves and hear the desired programme in perfect clarity.

Some experiments I am making on the detection of radiation in the infra-red region show that a machine, selective to a very limited band of frequencies, can be made. But, so far, the band of frequencies to which it is selective cannot be altered once the machine is made, and any device for making the machine cover a whole gamut of frequencies, and yet be selective on one chosen frequency, eludes me at present.

Even if this device were forthcoming, it would still be essential to know the frequency for every particular dowsing objective, and its surroundings, so that we could tune to their beat frequency and exclude all others. This is just what we do not know at the present.

But if the radiations of any particular dowsing objective and the rock in which it lies do indeed lie in the infra-red region, and if we can specify the frequency of these radiations, we should be able to produce an instrument to pick out their beat frequency from those of all other disturbing conductors. Then the dowser, with his confirming instrument, would become a truly scientific investigator with a greatly increased degree of usefulness.

For many years the B.S.D. has been carrying on a long and troublesome investigation to find the causes of the dowser's reactions, with a view to putting dowsing on a firm scientific basis, and to provide a simple instrument to corroborate the

dowser's findings. Perhaps the search for the fundamental frequencies of the radiations produced by the cosmic rays in common dowsing objectives and their surroundings may be the last difficulty holding up the completion of these aims. If so, there is no doubt that dowsing technique will benefit greatly from a successful result of this search.

REFLECTIONS

By G. AUSTIN BROWNE, F.G.S.

As a mining man, I have read Mr. Parkington's contribution with much interest. His references to " squeeze " and " creep " in mines possibly being caused partly by water pressure and partly by movement may start a discussion. I cannot disagree with this idea of water pressure being a cause, but it is, I think, generally believed that the lack of natural support consequent upon mining operations is the cause of movement. The primary direction of movement is downward, and its effect can be to produce a similar upward one. A considerable portion of a layer of the earth's crust is removed by mining, it may be vertical or flat, and any degree of inclination between, temporary supports are put in ranging from a stick of timber to a stone wall, or a " pack," and natural pillars are also left. All these excavations will afford water a channel of escape by which water pressures can be relieved. The shaft will attract water to itself, and the presence of a fault here may possibly increase the amount entering. Water in the further workings is directed to the shaft by the grading of the drives and levels.

Earlier in these notes reference was made to an upward movement. In a gold mine of my experience in West Africa we considered that this upward movement, which could and did play havoc with certain tramming levels, could be caused only by the application of a downward force. In this property, the " hanging wall " of the stopes was a quartzite, and the " footwall " a mica schist. This mica schist was a " farewell rock," and once it was encountered no more reef was to be expected. By comparison with the hanging it was soft. After excavation of the value in the stopes, and also in certain levels, movement began. In a tramming or haulage level the effect would be for the rails to require frequent relaying and re-grading. In stopes and such wide area workings this " footwall " heaved into mild waves, and, by its nature, used to flake off, often with force. Closure of the old part of the workings might follow, and collapse of the roof often happened, but this latter might depend upon the proximity of joint planes and the existence of more or less vertical fissures, along any of which complete fracture could take place.

To check up on which movement was causing closure, a theodolite survey would be necessary, and observations made to any roof peg which could be surveyed. Its three co-ordinates would have to be re-calculated, and comparison made with previously observed results.

All this movement, upward and downward, was accompanied by no alteration in the quantity of water pumped. Here the monthly figure was three million gallons, which was a very small quantity indeed for a mine with 15 levels, 1,600 feet depth, and employing 1,800-2,000 natives and 20-30 Europeans underground daily.

As for support, timber and a forest of props here and there in places requiring them provided the temporary measures. Waste rock was used for stone packs and stone walling, but no stope was made without recourse to natural pillars, which were areas of untouched ground, 15 feet or so in diameter, and left at 40-50 feet intervals and staggered in location. Timber has a good moral value when new, otherwise it is not too reliable. If old, it is deceptive, especially in view of dry rot, which often does not change the outward appearance of timber. It cannot withstand the tremendous forces or take the enormous loads which exist when movement begins, but it does give warning. Well-built packs and stone walling, if constructed properly and in the right place, are as good as anything. There is nothing to perish in these things. Natural pillars are good at first, and they are useful in supporting areas of weakness adjacent to faults. Moral value high. If movement eventually occurs, pillars may burst or fracture of the roof take place close to them. These pillars must be removed on abandonment of the stope, as, obviously, they contain value.

The reef in this mine had an average dip of 33 degrees, that is, the angle with the horizontal. Inclined creep, we believed, did occur, though timber might not show it, but this form of movement would usually result in fracture of the hanging wall quartzites and consequent fall, and, if bad, then pillars would burst. The stone walling and packs might support for a time, quite locally. If the pillars were not cleared in time, they might never be mined, as sooner or later there would be neither space for access to them nor clearance for the removal of the ore obtained.

The mine was a dry and dusty one, though the main supply of water pumped came from the fault planes, one main fault and smaller secondaries. Apart from the inevitable drip, drip of water, very annoying, and always down the neck of the surveyor at any theodolite set-up (so it seemed !), there was precious little water anywhere, and we could never attribute ground movement to this cause.

Mr. Parkington's mention of a colliery shaft missing the coal in sinking is interesting. Was it not possible for the mine geologist,

or the responsible person in charge of sinking, to detect all was not well and prepare for some clear thinking just as soon as he saw the fault plane crossing the shaft, or he had reached the depth without meeting coal? Of course, I cannot know the local features underground; but was there not some detectable difference between the rock above the coal and that below it? The difference may be there, and, perhaps, only noticeable in thin sections mounted as microscope slides, and this observation may have been carried out by the "second opinion" who was called in. On the other hand, it might have been plain to anybody, as would the difference be between our Gold Coast hanging and footwalls previously referred to.

Certainly, the displacement by the fault of the coal seam was considerable, as the entire shaft could pass the coal without exposing it. These things do happen in mining, and this was unfortunate. Observations on the fault at surface to determine its likely position at depth were no doubt impossible. In a heavily mined area, the existence of faults and the amounts of dips, throws and directions of strikes may be known, so that new ventures can start off with some pre-knowledge of what exists and may possibly be encountered at depth. In new areas, these things may not be known with much, if any, accuracy, so that Boards of Directors, responsible for the spending of shareholders' money, should avail themselves of the best advice and assistance. Diamond drillholes put down in such cases, to prove the deposit and also to prospect the site of the shaft, are thoroughly justified, and save great expense. Here was an instance where everyone concerned got a good scare, and it must have been a large sum of money which had been spent in sinking and equipping the shaft, and more had to be spent on the "second opinion," and in finding the coal which did not turn up as expected. As it happened, one can foresee the possibility of a colliery company being burdened for ever with a shaft which, as there is a big fault crossing it, may be an endless source of trouble, due to water and possible movement resulting in distortion and continual repair to the alignment of the cage guides, &c.

Whether a Mining Company Board should be composed of technical men is another matter. One fully qualified director among a lay Board is very useful, where he is listened to, if only to keep up the morale of his colleagues in such an event as described by Mr. Parkington. A Board which is thoroughly scared may make rash decisions, unless advised by one of their number who knows exactly what to do that is right, and can make his decisions from his own observations and from reports of his technical staff. Sinking shafts and equipping them is such an enormously costly business that no Company can afford to have misadventures in the early stages which eat up capital before returns are earned.

With reference to Mr. Parkington's mention of the recovery of water in wells, apparently independently of rainfall, about which he queries. It will be appreciated that replenishment of subterranean water can be accomplished only by rainfall.

There is, of necessity, an interval, or time lag, between rainfall and recovery, and this depends on several factors. They are (1) high evaporation in certain months, whereby only a small proportion of the total precipitation enters the earth; (2) the nature of the stratum comprising the local water-bearing formation, which decides its rate of absorption of water and the rate of travel of the water once it is absorbed, and (3) the distance of the absorbent or porus outcrop from the well.

In a Cornish tin mine of my experience, prior to World War 1, this large concern needed the pumps in three shafts during the summer months, whereas in winter one only sufficed to keep the mine " in fork " (the local expression for keeping the water down).

Care must be taken in well-sinking in formation known to be subject to seasonable fluctuations in water level that the depth is sufficient to cover for the lowest level the water will reach. This may mean that sinking should be carried on down into the generally impervious formation below, which will ensure that all possible water is secured from the water-bearing stratum and a reserve created against fluctuations. Otherwise, it may be found that the first necessity of a successful supply—an all-the-year-round water supply—will be absent.

UNBLOCKING WELLS

By EVELYN PENROSE.

There have been allusions from time to time in the *B.S.D. Journal* to the effect produced on an underground stream by the rhythmic hammering of the ground vertically above it. I have recently been able to prove, both to diviners and to non-diviners, that not only is this effect quite definite but that it can be used for unblocking underground streams and bringing failing wells back into production again.

How I came to be able to prove it was thus.

Australia has been suffering from a terrible drought, lasting in some districts for nearly ten years. This has led to a truly appalling mortality amongst the sheep and cattle. In two years alone the death roll for sheep reached the staggering figure of nearly twenty millions, and the figure was nearly doubled in actual loss, as, with the death of the ewes, no lambs were born.

Bores and wells which had never been known to go dry were drying up in ever-increasing numbers; so I went to the Graziers

Association of New South Wales (a branch of the big Pastoral and Sheep Association of the Commonwealth of Australia) and offered my services to the President as a water diviner to do what I could to find drinking water for sheep. This led to my visiting a number of large sheep stations, many of them having 20-30,000 acres of land, and 10-20,000 head of sheep, according to the richness of the feed on the land.

Land in Australia is valued by how many sheep it can carry to the acre. Very rich land can carry (*i.e.*, feed) one sheep to an acre, but on poor land it may need as much as 20 acres to a sheep, and this latter means a very large property, often with one field (known as "a paddock" out here) measuring from 10-20 or even 30 square miles.

Just before Christmas in 1944 I arrived on a sheep station in an area where the drought was particularly bad, and after several days' work I was asked to go and inspect the station's main well, which had to supply, not only the house, but the all-important wool shed, where the thousands of sheep are shorn, the wool pressed, &c., and also a paddock containing a large number of sheep. This well was causing the gravest anxiety, as the supply was getting less and less at an alarming rate.

I expected to see a large well of 60ft. or more and pumping at least 400-500 gallons per hour. Instead of this I found a well about 15ft. deep, dug in clay and gravel, and containing a ridiculously small quantity of water which could be pumped dry by the windmill in a very short time.

The son-in-law of the owner of the station was with me. He was a station owner himself, and a man of few words, and was consequently a most perfect person to work with, as he never argued (a point which all diviners will readily appreciate), and was willing to help in every way.

When I had got over my astonishment that so little water could be thought valuable, and made to do so much work, I had the windmill turned on and the well pumped out, and went down into it to inspect it for myself. There were three trickles of water coming into it (which could not by any stretch of imagination be called streams), and the largest trickle was coming in at the left-hand corner. So I returned to the surface and followed all three with my rod, marking them on the ground, foot by foot, with meticulous care.

For some time I had felt sure that small streams, moving slowly in the earth and with very little water in them, became blocked. I had tested a number of them from the surface, and had (to my own satisfaction but without actual proof) found the block in them, with more water behind the block than on the well side. I found a block in all three trickles, and decided to start work on the biggest of them, which was trickling into the well through a narrow band of gravel in the clay.

A large flat stone was placed exactly over the block, which was about 10ft. from the well. The stone was hit with a round-headed hammer. This "hitting" is by no means as easy as it sounds, as the strokes of the hammer must be in a perfectly even rhythm, not jerky or uneven, and the stroke must be a "dull" one, as a sharp stroke would crack the stone in pieces in a very few minutes.

With my tool I traced the water as it receded back to the block, and when it was about a foot beyond it I took over the rhythmic beating of the stone, and my assistant went down the well. He returned with the good news that no water at all was coming in at the left-hand corner, where the biggest trickle had been. To use his own words: "Not a drop of water is coming in; it is as dry as a bone." This was indeed satisfactory, as it was an absolute proof that water *could* be stopped from running in the ground.

The water was then driven back about 16ft. beyond the block, and then the stone-hitting was stopped and the water allowed to return in its channel towards the well.

Every few minutes I tested it to see how far it had gone on its return journey. The first excitement was when it reached the block. Would it pass through it, or wouldn't it? I hoped that the vibration caused from hitting the stone would have loosened the sand and gravel (or whatever it was causing the block), but the question was—was there enough water to force its way through the block and carry the debris causing the obstruction with it?

It was a slower process than I had expected, but the block was finally passed, and when my tool (a motorscope) told me that the water was nearly at the well itself, my assistant went down into the well again to watch for the water which we earnestly hoped would reappear.

I must admit that I spent a few very anxious minutes waiting on the surface, as each time I called out to ask if the water was coming through, the reply came back, "Not a drop, it is as dry as a bone," which was just as disconcerting this time as it had been pleasing before.

I realised very forcibly during those few minutes that what was just an interesting experiment to me might have very serious consequences for the station owners if I had spoilt their most valuable well for good and all.

Suddenly, a voice from the well called out, "It is coming through," and I rushed to the side of the well and nearly fell into it myself in my excitement at seeing a dirty muddy little stream coming in. It cleared in a few minutes, and a small clear-running stream (no longer a trickle) made a little channel for itself in the sandy bottom of the well.

The water had come back, the block was cleared, and the knotty question of whether or not running water could be stopped and driven back was answered once and for all.

The other two trickles were treated in the same way, but with much less thrill about them, as by then the newly released stream was gaining on the windmill, and had covered the bottom of the well by several feet; so we hadn't the pleasure of seeing the trickles drying up and returning as running streams.

It was Christmas Eve, and the station owner said it was the most wonderful present that he had ever received; and I am sure that the sheep would have heartily agreed with him could they have spoken. No more pitiful sight can be imagined by the animal lover than sheep who have made their last effort to get back to their drinking water places only to find them dry. Their dead bodies tell a pathetic story (and as there is no labour available to bury them, a very unpleasant one into the bargain, particularly on a very hot day).

I visited this well again last Christmas Eve, and was very pleased to learn that it is still as good as ever, although the shallow wells and dams in the neighbourhood are drying up.

One thing I have had to learn in this drought-stricken country is the enormous value of quite small supplies of water, and this being so, how difficult it is to convince landowners that to get dependable and permanent water in decent quantities they must be prepared to go down at least 100 feet for it.

However, this is a country of contrasts. On one station, belonging to the President of the Graziers Association of N.S.W., I found him a supply of water yielding 4,000 gallons per hour, which he did not consider worth developing, and he showed me one yielding 15,000 g.p.h. at 120ft., and another yielding over 20,000 g.p.h. within a quarter of a mile of his property. But these supplies are rare, and a supply of 250 g.p.h. is generally ample for stock purposes, with big tanks or reservoirs of 20,000 gallons to store it.

There is one word of warning which I would like to give to other diviners about unblocking streams and bringing wells back into production which is to make sure that the well isn't sunk in rock, with a rock bottom, through which the water comes up in cracks or fissures.

I experimented on a rock well of about 60ft. which was (fortunately) put out of commission, as only about 30 g.p.h. could be pumped out of it, although it originally gave over 500 g.p.h. I found that the stream leading to it had a very big block in it, so big, in fact, that two of us worked on it, on different stones, hitting together in rhythm. I expected a really good result, and after tracing the returning water foot by foot to the well, I was extremely astonished when no water came into it, not even the original 30 gallons. The water had cleared the big block

in returning, so the only explanation was that the rubble from the large block had filled up all the cracks in the bottom of the well like cement, and did not allow any of the water to come through.

I thought, personally, that this was a most interesting experiment, but, I regret to say, the station owner did not take that view of it at all, and was more than a little annoyed about it, particularly as he had done most of the hammering on the stone. This has made me most careful to examine the strata of a well before I start making experiments on it.

I am often asked if depth makes any difference o driving back the water and unblocking streams. I certainly think it does, and I doubt if it could be done at any great depth.

My first experiment after reading an article in the *B.S.D. Journal* by Mr. Busby, of Cowra, Australia, was made near Johannesburg, where I went on a property to try it out with three other diviners (all of us sceptics, I regret to say).

The property was, unfortunately, on granite, and the fissure we chose was 180ft. down. There was no other water anywhere near.

I misguidedly undertook to do the hammering, little knowing what I was letting myself in for. After an hour and three-quarters I had only driven the water back four to five feet, but it definitely was not in the fissure where it had been when I started, and all three diviners (unwillingly) had to admit it. But we found it in several places in a sort of arc quite close to the original fissure, showing that the water which had been driven back had been forced into fissures or cracks in the granite.

However, I doubt if any really satisfactory results could be obtained in fissures in rock, or at any great depths, but a great many more experiments would have to be made before one could be certain about either of these points.

Anyway, the first steps have been taken, and I hope other diviners will be inspired to carry these experiments further.

THE UNIVERSAL PENDULUM

By J. L. CAPES, B. Sc.

In recent years, the French radiesthesists, MM. Chaumery and Belizal, have developed a method of using a pendulum which appears to me of great importance for all radiesthesists engaged in therapeutic work, particularly for medical radiesthesists.

Briefly described, the " Universal " Pendulum is an aluminium ball about 4cm. diameter, weighing about 120gm. (4oz.) fitted with a swivel or stirrup mounting of thick aluminium wire, on which a loop of string can slide freely, so that the ball can be suspended at pleasure with any diameter in line with the string.

The researches of the inventors on the radiesthetic properties

of the sphere have shown that the surface of a sphere of any material can be divided into zones which react to a pendulum similarly to the reactions of the spectral colours. The contrary holds, so that if a particular zone reacts to (say) blue and the sphere is suspended so that this " blue " zone is uppermost, used as a pendulum it will react to a blue sample.

However, it was found that this effect did not persist, because, in fact, the colour zones wandered slowly over the surface of the sphere in 24 hours. Thus, any ordinary pendulum, usually a wooden ball, suspended from a fixed point on it, might by chance react to a certain colour or not at all, and later on to a different colour. This had been my own experience since I began dowsing, and I could never obtain any but feeble and inconsistent results with colours, and could not verify the statements of other workers as to their reactions, evidently due to a sensitivity much superior to mine.

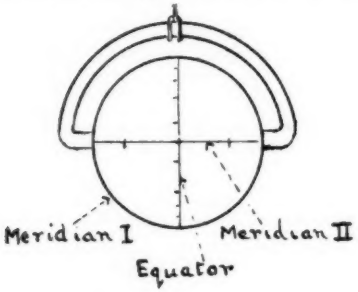
The inventors discovered that by inserting small pieces of non-magnetic metal at certain points of the wooden ball, this wandering of the colour zones ceased, *i.e.*, the reactions were stabilised. The ball thus treated is fixed in the stirrup, so that it can be swung from any point on its surface. Using such a ball, and also a rubber one which I calibrated myself, I was able for the first time to get strong and consistent reactions on the spectral colours and to undertake the study of bodily reactions, which is the chief aim of present-day radiesthesia.

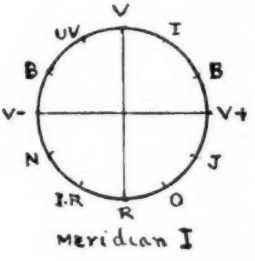
Later, the all-metal ball was introduced, which has the advantage of neatness and accuracy of calibration. It can also be used for dowsing in the general sense and, I think, might help experienced dowsers to overcome those neutral periods to which they are always liable.

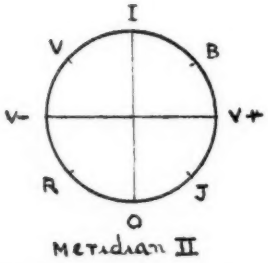
The book published by the inventors describes their researches fully, but for novices some hints on the manipulation of the pendulum and an explanation of the markings are necessary. By novices I do not mean absolute beginners at dowsing, but those who have no experience of heavy pendulums and the careful technique required. Real beginners, in my opinion, would require a little experience with the ordinary methods to see if they have any natural aptitude, if not able to have personal instruction from an expert.

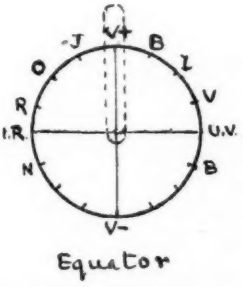
The ball has three grooves on its surface in planes mutually at right angles, with the markings of the initial letters of the colours spaced differently on each, which is liable to be confusing. The best way of describing the position of the circles is by geographical terms. The points where the stirrup is pivoted are the Poles of the ball; the two circles at right angles passing through the Poles will be called Meridian I and Meridian II respectively, corresponding to the longtiudes 0°-180° and 90°-270°; while the third circle will be the Equator. On Meridian I are

marked the French initials of the colours, Violet, Indigo, Blue, Green, Yellow, Orange, Red, with the addition of White, Ultra-Violet to the beginning and Infra-Red, Black to the end of the row. The French initials are accordingly B, U.V, V, I, B, V, J, O, R, I.R, N, remembering to distinguish between V (Violet) and V (Vert) and not confusing B (Blanc) with the English B (Black) and B (Blue). This gives eleven markings, and a twelfth is added, called Minus Green (V−). These twelve marks are spaced equally round Meridian I, *i.e.*, 30° apart, with the two Greens (V+) and (V−) at the Poles. On Meridian II only the colours appear, with the Greens at the Poles and the other









colours 45° apart. On the Equator all the markings of Meridian I appear, but spaced only $22\frac{1}{2}°$ apart, leaving two blank marks on each side of Minus Green, which coincides with Red on Meridian I, while Plus Green coincides with Violet on Meridian I. This apparent confusion is not real, as the colour reactions are obtained in different conditions. The string, attached by a loop to the stirrup, can be easily slipped round the stirrup, and is knotted in two places to mark the position of the two oscillating lengths used in testing. These are roughly

19½cm. and 14½cm. from the centre of the ball, or 7¾in. and 5¾in., giving roughly 68 and 79 swings per min.

With a wooden or rubber ball, "stabilising" pieces, consisting of small cylinders of copper or aluminium, are inserted at the four points of intersection of the Equator and the two Meridians.

In explaining the procedure, I know that every dowser has his own way of swinging a pendulum and that explicit instructions may be therefore superfluous, but as the pendulums used are generally much lighter, I may mention that I find it essential to give this heavy pendulum a preliminary swing and then leave it to itself, when, if there is no radiesthetic reaction, it will stop after a few swings. If reacting, it will usually continue swinging for minutes, though sometimes it may be stopped with a jerk after one swing or rapidly increase its amplitude of swing, in abnormal conditions.

A set of colour samples is required, small enough to hold in the palm when necessary, and fresh leaves and flowers are useful, as they give strong reactions. Setting the loop accurately over the nick marking any colour, on Meridian I, hold the string at the upper knot and the ball should gyrate steadily clockwise (+ gyrations) over the corresponding sample laid on the table or held in the palm of the free hand. The best oscillating length is found by trial, near the figures given roughly. Having obtained + gyrations over a Green sample, slip the loop over to the opposite Pole, *i.e.*, reversing the pendulum, and counter-clockwise gyrations (− gyrations) should occur. This reaction, called Minus Green, is an important one to notice, as it seems to be connected with peculiar effects on the human organism.

When adjusting the loop successively to find a colour, it is essential to make the ball touch the table (earth) before each test, so as to avoid mistakes, and as the chief use of this pendulum is to search for the colour reactions of the body, I emphasise this precaution.

Using the lower hold, *i.e.*, the shorter length, no reaction should be obtained over colours on Meridian I, but will occur on Meridian II and the Equator. The makers call the lower length "Magnetic" and the shorter "Electric" respectively, referring to the fact that the reactions associated with the two lengths are influenced by the presence of iron or non-magnetic conductors or insulators in a manner similar to the influence of these materials on magnetic and electric fields. Thus, human body reactions are detected through the insulating material of the garments just as the effect of a magnet passes through an insulating material covering it, while the presence of iron in the garments might greatly hinder the detection of the same reactions.

The White and Black reactions will be obtained on the corresponding samples; Infra-Red will be given by heat rays and Ultra-Violet by any source of these rays. If held in direct

sunlight or the direct rays of a powerful electric light, the pendulum will gyrate for any colour setting. Reactions to samples should be obtained in any good reading light by day or night, and also by pointing with the free hand at the samples.

Having become accustomed to working with known colours, one may proceed to the determination of the body colours of human beings necessary for vitality tests. To find one's own colour, the diaphragm is pressed hard with the fingers, and the pendulum adjusted all round Meridian I, using the longer length, until steady gyration is obtained, and taking care to earth the ball before each test. Testing then over the palm of the hand should give gyrations, and over the back of the hand oscillations, for a male, and the reverse for a female. This operation should be repeated at different times of day and on different days until a constant result is obtained. Testing on another person, the same region of the body should be pointed at, not touched, from a short distance (obviously white, black and brightly coloured garments should be avoided), adjusting the pendulum with the usual precautions and then verifying on the hand of the subject. The observations are, of course, repeated at intervals until a constant reading is obtained. For a measure of the vitality of the subject, the greatest distance giving the reaction should be observed; eight metres (25ft.) has been considered to presume a state of good health and below six a condition of serious debility, but such figures must depend on the sensitivity and experience of the operator. It is possible that another operator might get a different result on the same subject, as I think that each individual may have his own radiesthetic "power," and that in tests between two persons the resulting reactions may depend on the relative strengths of the individual powers, which may be additive or subtractive, or possibly neutralise each other.

Having obtained the correct colour, it will be possible to detect defects in the vitality of particular parts by exploring with the pendulum set for the colour; and near the region affected, the reaction should weaken or cease or change its type, *i.e.*, gyration changes to oscillation or to negative gyration, or the colour may change. The inventors have a system by which, after examination of samples of various possible remedies, which are classified in a colour scale by pendulum reactions, the suitable curative treatment can be found. If the defect is one of simple weakness, the inventors claim that the pendulum itself can be used to apply curative treatment. The affected part is touched, and the pendulum, set for the personal colour, is swung deliberately and steadily for (say) five minutes at a time.

It is claimed that used in this way the pendulum acts as a "generator" of energy of the type of the colour to which it is set, so that beneficial (or possibly harmful) energy may be transmitted from the operator to the body of the subject. This

applies also to inanimate objects, *e.g.*, if a small piece of metal (a coin) is touched while the pendulum is swung, it will acquire properties similar to the setting of the pendulum. This is easily verified, and I have found that a coin so treated will react for days after. It is also stated that if a number of such pieces are each treated similarly, and placed end to end in a row or chain, they will constitute a "battery" or "accumulator," according to the electrical analogy, which stores up the energy and communicates its influence over the surrounding space. I have made up two batteries, in this way, of nine and fifteen elements, treated with different colours, and found that the reactions could be detected in each room of a flat for weeks, and that, with the battery charged with Minus Green, all my normal reactions were completely upset. The inventors claim that a beneficial (or harmful) influence can be slowly conveyed to the organisms of the occupants of a room in which the battery is kept, but much careful testing will be required before the truth of this claim can be acknowledged. The energy called Minus Green is stated to have deleterious properties and be capable of dessicating flesh. At any rate, it seems to be true that the radiesthetic power of the body can be stored outside it—a very important step in our knowledge of the subject.

After all these tests, it seems clear that the pendulum is not merely an indicator, as was previously supposed, but that it plays an important part in the phenomena. I am inclined to think that the radiesthetic power of an individual resides in the muscular efforts involved in the manipulation of the pendulum, combined with a peculiar condition of the material of the pendulum which influences these manipulative muscles.

The inventors suggest that the zones on the sphere are connected with the earth's electric and magnetic fields; but although it is true that static electric and magnetic fields give radiesthetic reactions and obviously also electromagnetic fields (as light), I doubt if there is convincing evidence that these are the actual basis of the phenomena, but rather some still unknown force.

A criticism I have to make of the Chaumery and Belizal system is that it describes invisible effects in terms of colours, though an "invisible" colour is a contradiction in terms. To speak of a person's "colour" has, in my own experience, brought to the recollection of subjects I have tested, the idea of the so-called human "aura," of whose existence I have never found the slightest proof, and therefore I think it advisable for operators of this system to explain that colour in this connection may have a special meaning.

The use of the "Universal" Pendulum (*Pendule Universel*) is well known to French and Belgian radiesthesists, and it is to be hoped that some members of the B.S.D. will take up its interesting study.

PART TWO

SCIENCE MARCHES ON

WILL THIS BE THE MEDICAL TREATMENT OF THE FUTURE?

BY A WEST-END PHYSICIAN.

(*Reprinted from* Money *for April, 1946, by kind permission of the Editor*)

To-day, in this country, public attention is focussed on the problems of the medical profession in relation to the State and their patients.

Inherent in these problems is the query: "Will a sufferer remain free to choose both the doctor and to some extent the kind of treatment he desires?" Certainly the State guarantees to all the most up-to-date methods and the best skill and material resources available.

But what of those treatments at present outside the boundaries of orthodoxy? What will be the position of such practitioners and their patients?

NEW METHODS

What are these unorthodox methods and what kind of patients seek help from them?

The most important of this group are the radiesthesists (radioesthesia—sensitivity to radiations) who by various methods are detecting and measuring the radiations given off by all parts of the human organism. The pioneers of radiesthesia used the pendulum or the divining rod. More recently several instruments have been developed which are sufficiently sensitive to pick up human (and animal) radiations and measure them accurately.

The principle underlying this work is that each organ or part of the body has its *own specific wavelength*, as has also each disease, each pathological condition and micro-organism.

ACCURATE AND THOROUGH DIAGNOSIS

Thus a physician using one of these instruments and wishing to ascertain the precise condition of, for instance, the spleen, can tune in to its wavelength and find whether it functions well or weakly.

The wavelengths of practically all the organs and tissues of the body have now been worked out, checked and counter-checked.

NEUTRALIZING DISEASE

Specific wavelengths for the neutralizing of hundreds of diseases are also known. Armed with this knowledge, the operator of one of these diagnostic instruments can locate the unhealthy organs by tuning in to their wavelengths and taking readings; then, by testing and comparing the organ with the known disease vibra-

tions the reactions will lead him to a complete and accurate diagnosis. This applies equally to all types of diseases, curable or incurable. Earnest workers in the medical profession are using these instruments in increasing numbers and good work is being done.

New Treatment of Diseases

Lately a remarkable development in this field has taken place: this uses an instrument for *treatment* as well as for diagnosis by radiating to the patient on the wavelength of the diagnosed disease and focussing these radiations directly on the parts affected. In this method no medication of any kind is necessary, as all the healing processes are promoted by the irradiation from the transmitting instrument. It must be understood that there is no power unit or mains or other applied electric connections associated with this treatment. The healing power comes from cosmic rays and the patient's own energy.

The emanations from radium and X-rays are destructive to healthy and diseased tissues alike. This is most definitely **NOT** the case with radionic healing, which focuses corrective vibrations directly on the disease, for which it is specific. Should it reach healthy tissue there is no destruction because no reaction could take place.

Preventing Disease

Among the advantages claimed for radionic methods is that serious conditions may be detected before symptoms arise. The importance of this in conditions like cancer and tuberculosis cannot be too strongly emphasised. In cases where diagnosis is difficult the radiesthesist is often able to settle the matter beyond all doubt. Often, too, in the more subtle conditions of ill-health radionic methods can trace the cause and deal with it radically.

What May be Claimed

Let us consider now some of the claims of vibratory or radionic treatment. At least some of the surgical emergencies can be avoided: appendicitis, acute or chronic, with or without abscess, yields readily to these methods; gastric or duodenal ulcers yield within a few days. Sometimes the patients say the pain disappears overnight. The infectious fevers can be shortened considerably. All types of infection, including acute blood conditions, respond well. In some acute conditions a correct vibration will produce dramatic results. Apoplectic strokes, if treated in their early stages, are cured completely and quickly.

A great many other conditions have been cured or alleviated by these instruments, and knowledge advances with experience. Will the unorthodoxy of to-day be the orthodoxy of tomorrow? History suggests that it may!

[The Editor of *Money* invites inquiries, and will do all he can to assist subscribers and readers.]

A NOTE ON DR. J. W. WIGELSWORTH'S "PATHOCLAST"

(For Radionic Diagnosis and Treatment)

By J. CECIL MABY, B.Sc., A.R.C.S., F.R.A.S., B.S.D.

This elaborate, well-finished instrument for medical diagnosis and physical therapy is, apparently, a combined electronic receiver and transmitter (*Pathometer* and *Pathoclast*), with high gain amplification of some X 20,000, that functions, however, on unorthodox Hertzian lines. Or so decided two expert electrical engineers (M. Child and G. G. Blake) and myself in 1933, when we examined the apparatus in some detail.

The hypothetical high-frequency (? ultra-short-wave) radiations in question are picked up either direct from the human patient, employing a special flat coil (the "patho-collector"), which is placed near and at right angles to the organ or tissue under examination, or else from a tubed sample of blood, sputum, urine, &c., which can be introduced into the oscillatory circuit of the detector. For these purposes suitable plugs and sockets and two specimen wells are provided on the instrument panel, together with various tuning knobs, variable resistances, meters, &c. And a special feature of the apparatus is, it is claimed, that the supposed high frequency oscillations, picked up on the detector side from the given patient or specimen, are then highly amplified and fed back to the patient *in inverted phase*, by way of treatment. This procedure is intended to damp out and neutralise the original, emergent vibrations, which are of like frequency, but half a wave out of phase with the returning waves from the transmitter (output) side of the set. "Radiations of disease" are thus said to be progressively damped out.*

Detection of the critical dial readings, while the knobs are being turned, at which the energy in question comes through the set, is achieved by a human sensitive—the operator; and one obtains reactions in terms of a change of adherence between the palm of the hand and a glazed iron plate, which is energised by the apparatus—presumably in relation to the output side of the circuit. The method, which is perfectly simple, but needs much practice and skill, is to rub the palm of the hand continuously on the surface of the glazed plate, while turning the tuners or resistors of the set, until a more or less sudden and definite "stick" is felt. The dials are then read, and the procedure repeated several times in either direction until the operator is satisfied as to the repeatability and average, or peak, value of

* Passages and inventor's claims marked thus are subject to query and some orthodox scepticism, in the present state of our knowledge of electronics and radiology.

the response. This effect is perfectly real, as all users of this and similar instruments (*e.g.*, those of Drown and De la Warr) agree, and it appears to be a physiological reflex reminiscent of the well-known psycho-galvanic reflex (change of skin resistance) under emotional stress. Both probably originate in the sympathetic nervous system; but it is uncertain whether capillary circulation, the sweat gland of the skin or changes of muscle tonus are the ultimate factors. Note, too, that a similar surface adhesion effect between smooth, dry surfaces under high potential electric stress is known to Physics. But I, personally, favour the physiological, radiesthetic interpretation.

THE BIO-PHYSICAL PRINCIPLE

On the basis, presumably, of the well-known observations of numerous radiesthetists and "electronists," such as Starr White, Abrams, Richards, Regnault, Boyd, &c., it is assumed that every substance, organ and tissue gives off a high-frequency, electromagnetic radiation of individual and specific wavelength. This energy is collected from the patient by means of the exploratory coil, termed the "Patho-Collector," which is placed in a plane perpendicular to the area under examination and relayed to the detector, or reception, side of the apparatus. Or else such energy may be collected from a small specimen of blood, sputum, urine, hair, &c., placed in one of the wells mentioned above. In either case, it may be then (*a*) passed through the tuning coils, &c., of the set, and the dial reading at which it causes a response in the sensitive operator, while rubbing his or her hand on the detector plate, be recorded (also the relative intensity); or (*b*) it may be automatically amplified by the set and fed back to the patient in inverse phase.

The latter procedure gives *automatic treatment against the disease (if any) in question*, it is claimed, on the basis of electrical "damping," or neutralisation, of the outgoing waves by the returning waves of equal frequency that have been inverted in phase by the set. And it is further claimed that an overdose cannot be given, since the treatment automatically stops itself as soon as complete neutralisation of the outgoing disease radiations from the patient has been achieved. For there is then nothing left for the apparatus to pick up, amplify and return to the patient. Nor can wrong treatment, at some unmatched frequency, be given, since the original frequency of the patient's energy output is automatically picked up and adopted by the apparatus—as characteristic moduli of the basic h.f. oscillations of the set, presumably, like a "programme" on a carrier wave.*

There must, however, be a generalised electronic (? untuned or aperiodic) energy output from the set, acting as an electric oscillator and high gain amplifier—a sort of "carrier wave" upon which are, one assumes, superimposed the specific frequency modulations of the special vibrations of the patient and his organs

and tissues.* But this output may very well exert a beneficial and generally stimulating effect—in moderation, at least. And that such an output from any electronic receiver actually occurs has been shown by Radar tests, &c.

Alternatively, if the frequency or " rate " of the disease radiations have been correctly diagnosed on the " pathometric " side (see above), treatment can then be given by tuning the set, as a transmitting oscillator, to that rate, and then applying the output to the patient.* But, in case of incorrect diagnosis and also because regulation of dosage is not any longer automatic, this procedure is not recommended—a criticism that might fairly be applied to the original Abrams' technique and certain short-wave therapy treatments also.

Incidentally, it is generally agreed (and I can confirm this) that diagnosis can be achieved by the instrument even when the set is not artificially energised (connected to the mains supply); since the dowsing-type radiation is still being received by the instrument. But the effects will then be much weaker, since amplification is absent. And the same thing has been observed in " dowsing " practice in relation to analysis by means of the so-called " fundamental rays," &c. Additional electrical oscillation and amplification only " boosts " a naturally existent radiation. It does not create specific effects *de novo*. Moreover, the objective reality of electric wave radiations of the general type here required can now be shown instrumentally. (See below).

PREPARATION OF SPECIMENS

By putting clean glass vials of pure distilled water into the specimen wells of the apparatus and " charging " them with the specific vibrations of the subject, what is called *aqua potentia* can, it is claimed, be prepared, that can be used to represent the patient's individual body frequency (? totalised output, or compounded frequency).

This is done by (1) placing the vial of untouched water in one of the two wells and " neutralising " it by electric oscillation. (Directions given in the *Pathoclast* handbook).

(2) having the patient or subject place a finger in the other well while the first well and vial are being " charged." Energy from this well is then transmitted to the vial and water in the other well, which is said to become charged with the patient's vibrations.

Further, multiplication of the potential can, it is claimed, be obtained (as in Homœopathy) by a series of electrical step-up charges from one vial to another in the two wells, each of which

multiplies the initial charge by X 2; though the procedure need not be given here.* The phenomenon reminds one of *rémanence* in dowsing. (See below).

In the case of either such *aqua potentia* or ordinary specimens of blood, sputum, &c., it is emphasised that they should not be handled, and so contaminated, by anyone but the subject himself, or only with forceps, if an operator intervenes. And the well, the tube and filter paper, &c., must first be "neutralised" by the special electric means provided before a tube is used or the specific specimen included and examined or measured. . . . This precaution appears to fall into line with what Dr. W. E. Boyd, of Glasgow, using the *Emanometer*, and also medical radiesthetists and analytical dowsers have observed; and it especially applies, of course, to small or aged specimens. It is, for instance, absurd to enclose a small specimen of, say, handwriting or a minute blood spot in a much handled envelope, or, of course, to lick and seal the latter after the subject has parted with it. Good-sized samples in clean tubes that are handled as little as possible are, therefore, recommended by the present writer in all such work.

Broadcast Treatments

In the case of the Drown and De la Warr apparatus and diagnostic methods, not only is the subject or selected specimen diagnosed, as to specific "rate," by a somewhat similar procedure as in the *Pathometer* (a human sensitive being again used as detector); but automatic treatment at the selected frequency is given *distantly* (tele-radionic effect) by placing the specimen in circuit, "tuning in" to it, and leaving the set to radiate on its own account over long periods of time—an earth connection being, apparently, essential. And the present writer thought that he obtained more intense effects on the subject or patient when a directional aerial plus artificial energisation (electronic oscillation) were added to the set-up.

Certainly sensitive radiesthetic subjects (and dowsers) can pick up the resultant radiation far easier when (*a*) an earth and (*b*) a directional aerial are incorporated, acting distantly. And these effects can, so far as the basic (untuned) carrier wave, at least, is concerned, be confirmed instrumetally by means of the new *radio-electrometer*. Response immediately increases when an earth wave is permitted, and the directional effect when the dipole aerial is turned towards the detector (whether physiological or mechanical) is very well shown. There is, in fact, a fanning out of energy in the selected direction, forming a figure-of-eight polar diagram and a weaker reciprocal effect, as in ordinary radio, with peak signal strength along the axis of the dipole or loop

aerial. And, no doubt, the beam could be narrowed down and more sharply directed by following standard radio practice in directional aerial design.

But all such broadcasting experiments are severely censured by the *Pathoclast* Laboratories, since they maintain that everyone in the path of the beam is liable to pick it up and be (perhaps dangerously) affected by it. And this seems reasonable enough at first sight. It assumes, however, that *any* person, other than the individual subject in question, is capable of resonating to the given frequencies that are being broadcast: an assumption that is open to question. For instance, if this were true, one would expect that all persons near to, say, a cancerous subject would pick up the noxious frequencies in the course of normal daily life, and so be harmfully affected. Again, in the case of telepathy, one would expect any and all persons in a receptive state to pick up the supposed radiological impulses, in addition to the near relative or special percipient whom they immediately concerned. But no sure evidence of either of these effects is, I believe, yet available; and it looks as though the percipient or receiver has also to be syntonised or "tuned in" (*i.e.*, physically sympathetic) to the given frequency in order for response to occur.

However, detailed tests need to be made in this respect; and the *Pathoclast* Laboratories say that positive results were got from such specific tests, showing that generalised reception did, in fact, occur. If so, medical workers should be extremely careful about this; and the apparent effects of certain subsoils and underground streams in relation to cancer, tuberculosis, asthmas, rheumatism, eczema, &c., seem to implement their ideas; though it seems that only certain individuals who are either of abnormal sensitivity or who are bodily "tuned" to certain specific frequencies will be appreciably affected. But there is, of course, the possibility that such persons may lie in the path of the broadcast radiations, and so be adversely affected—especially if strong, amplified fields are employed.

Diagnosis by the "Pathometer"

If there is energy flowing when the dials are set to the known disease rates and there is a "stick" reaction between the operator's hand and the glazed plate, then (if he is reliable) the given disease is indicated. If not, then it is supposed to be absent; the intensity of disease being judged by the amount of resistance (on the "potential" dial) needed to impede the energy flow and stop reaction taking place.

In addition, special provisions are made on the *Pathometer* for those who wish to test the suitability of foodstuffs against the body frequency of individual patients, a specific disease condition or gland structures. "The foods which are most highly indicated for the patient are those which raise the vital

potential and reduce the potential of the disease." And having first selected those foods which raise the vital potential (reaction intensity), these are next tested against the given disease rate for a plus or minus potential change—if a disease is in question. But the full details of the procedure cannot be quoted here or without the actual apparatus in front of one.

Again, provision is made for *colour* therapists. This is done by placing the diagnostic specimen (blood, sputum, aqua potentia, &c.) in the appropriate well, and a special " colour selector " on the instrument is then set to the colour which is to be tested for a beneficial, or else noxious, effect on the subject—much as in the case of the food tests. But how the " colour selector " works, I do not know; possibly by some sort of harmonic frequency effect in the tuning, or " rate," setting that results from its manipulation. In any case, the principle appears to be similar to that used by some " dowsers " who use colour samples in place of specific substances. And, in the present instance, the raising of the vital potential by virtue of the colour selector indicates that such colour would be beneficial to the subject, and vice versa. The most suitable colour will also, it is stated, lower the disease potential, if any.

The *vital potential* dial readings obtained from normal subjects of different age groups are given in the Instruction Manual with the instrument, and range from an average of 18 (on the dial) for young children down to eight for aged persons over 75 years. Potentials markedly different from these are said to indicate abnormally high or else low vitality, so that the general constitutional state can be estimated by a skilled operator.

As an aid to successful operation, a heater (from the mains) to the diagnostic plate (on which the operator rubs his or her hand to get the radiesthetic reaction) is provided, with a variable control; and a warm room and plate are recommended—presumably to keep the plate dry and the operator's circulation and reflexes in good order. The plate itself is not quite smooth, and the plate and one's hand must be kept clean and dry. But a touch of resin powder is found useful in some cases to aid the " stick " effect, provided not too much is used. The operator is outside the actual electric circuit, it is stated.

Apparently, room temperature should be not less than 72°F., and the operator should be in good health and a calm, unemotional state, in addition to being sensitive and fully experienced. There is, in fact, a tendency to obtain a certain margin of error or range spread on the dial readings, even with skilled operators (as in other radiesthetic and physiological measurements), that may, I think, be attributed either to variable pressure of the hand, variable sensitivity with changes of health and relative fatigue, &c., in the operator, or (as I have proved in certain parallel experiments) to the frequency spread of the " signals "

coming through. And the stronger the "signal" the greater this spread tends to be, so that, to get some fair idea of the peak value (which is, presumably, what is required in diagnosis, at least) one should take the average of the maximum and minimum readings obtained on the dial, working round in opposite directions. And if the instrument functions similarly to the Drown apparatus, it is possible that phase shifts may also introduce sources of error in the "rates" obtained against different specimens and patients—unless complete electromagnetic stability has been attained on this apparatus. Such phase changes and "polar reversals" of the electric field have been shown to be very real and a great nuisance in ordinary "dowsing."

Discussion

It will be evident from this rather superficial account of Dr. Wigelsworth's apparatus (*a*) that it probably functions in a radiesthetic sense, and (*b*) that it probably provides the most advanced and complete apparatus of its kind to date—so far, at least, as the present writer is aware. Nevertheless, its true *modus operandi* does not seem clear or satisfactory to the orthodox radio engineer.*

Professional operators over the last two decades, who have used the *Pathoclast* for medical diagnosis and treatment, report excellent results; and, seeing that the principles involved now appear to have been conclusively established by recent physical and bio-physical research, the present writer thinks that an account of this particular instrument and method may be of interest to radiothetists in general. He would like to point out, however, that this paper is only intended as a general introductory, also that the outline given here is not in any sense "official," but is based simply on his own brief examination of one of these interesting and beautifully made instruments (back in 1933), a careful persual of the makers' instruction manual, and certain letters and discussions he has had, from time to time, with professional users of the instrument. He must, therefore, accept full responsibility for any (unintentional) errors of fact or theory regarding the *Pathoclast*.

One cannot, however, avoid a deep conviction that this method is another variant of the more general radiesthetic principle, of which other examples are those of Abrams, Starr White, Boyd, Drown, &c., not to mention the procedures of "straight" dowsers using specific samples, colour samples, "fundamental ray" position angles, and so forth, with a pendulum or divining rod as reflex indicator. And it is next hoped to utilise the new *radio-electrometer* (now being developed by myself from the Baraduc "Biometer" and Lord Dowding's simple revolving paper cylinder—see *B.S.D. Journals* for June and September, 1945) as the actual detector component, in place of the human

operator. Initial tests in this direction are very promising, and ultimate developments will be published, in due course, in one or more of the journals dealing with this subject.

I cannot, in this paper, discuss the detailed theory of electric wave radiations that underlies radiesthetic phenomena and the working principles of instruments such as the *Pathoclast*. But it should be pointed out that the modern, and now classical, investigations of electric "brain waves" by physiologists, such as Berger, Adrian and Cazzamalli, employing the electro-encephalograph and ultra-short-wave radio detectors, with high electronic amplification, provide a sound initial basis for the present type of enquiry. For these workers have shown that the human nervous system, at least, emits electric waves over a very wide frequency range: some 10 to 2,000 cycles per second, according to cerebral state of attention and mental activity in the first case, and of the order of some 10^8 up to (probably) 10^{10} or more vibrations per second, in the case of the emotional broadcasts or "psycho-radiant" reflexes recorded by Cazzamalli and the present writer. And the long-wave, low-frequency effects recorded by the electro-encephalograph are, probably, only compounded wave forms and modulations of a recurring nature (*e.g.*, the so-called "alpha rhythm" and "delta waves") superimposed upon some far higher frequency "carrier wave" belonging, apparently, to the ultra-short Hertzian to infra-red spectral region, whereas my own observations (assisted by A. H. Reeves and others) with the new radio-electrometer show that the "psycho-radiant" effects under tension or emotion can not only be transmitted and received at considerable distances in air or a near-vacuum, but are also extremely penatrative of solid matter.

In that case, much higher frequencies still, somewhere up in the gamma ray region of the spectrum, would seem to be involved —hard as this may be to credit—as in the case of the ordinary dowsing rays from non-living matter, which can be shown to create weak photo-electric effects on sufficiently sensitive electrometers, &c. And the so-called "mitogenetic rays" of growing organisms, demonstrated by the Gurwitsch school some years ago, also appear to fall into this class. But the whole theoretical situation is still extremely involved and confusing; only that we do now know for certain, by a number of instrumental and physiological tests, that living organisms radiate in a vitalistic as well as a purely mechanical and non-vitalistic sense (along with other matter) over a very wide range of frequencies; and that certain of those rays are evidently related to (*a*) metabolism, on the one hand, and to (*b*) nervous and mental tension, &c., on the other. So that an apparatus such as the *Pathoclast* is by no means non-sensical or merely concerned with imaginary psychological phenomena—as the sceptical newcomer might, at first, suppose; though whether it is, at present, functioning to

the best possible effect or even precisely as its inventors may believe is, perhaps, open to doubt. But high-frequency wave radiations, capable of being guided along wires, and of a kind amenable, apparently, to such usuage most surely exist; and this instrument appears to have been conceived and built on the right sort of lines, except in so far as the human detector (on the diagnostic side) introduces a factor of uncertainty. But this limitation will, I think, soon be overcome.

The high working temperature (72 F.) recommended is interesting in view of the facts: (1) that human metabolism and sensitivity tend to reach a peak value at around that temperature, generally speaking; though British operators might prefer something cooler; and (2) the new radio-electrometer, already mentioned, increases in sensitivity as temperature rises—especially above about 70°F.

The "charging" of vials of pure water with radiations of specific individual frequencies, also the contamination of specimens by being handled by other persons (even through glass or other temporary protective coverings, I find), is highly significant, however hard to believe or explain. And similar effects are observable throughout Radiesthesia and Dowsing science, as all sensitive operators agree. For instance, the *rémanence* or residual impression left by objects for some time after their removal—even in the case of materials not possessed of classical radioactivity. And such a minute effect was demonstrable instrumentally by a highly sensitive "induction balance" which I once made and used for several years, though it was fleeting (lasted only a few seconds); and it was not attributable to either mechanical or electrostatic disturbances of a normal kind. It seemed, rather, to result from some temporary electromagnetic deformation (? a kind of photographic image) in the actual atoms and molecules of the impressed substance. But electronic oscillation or strong alternating magnetic fields quickly destroyed such "residuals."

Volatile substances, including metals, &c., will leave behind enough material particles to be detected by the spectroscope; and the case of classically radioactive matter is also fairly clear, since particles are ejected and temporary radioactivity may result in the surroundings. But this sort of *rémanence* appears to be more subtle, though it, too, may be electro-chemical in the last analysis. For *all* materials are now admitted by physicists to be "spontaneously radioactive" in a very subtle sense, emitting electric rays of specific individual frequencies, according to atomic structure. So that the "dowser" is finally vindicated, and the so-called "fundamental rays" and specific linear wavelengths (worked out by Voillaume, Turenne, &c., and recently confirmed in detail by T. B. Franklin, W. H. Trinder, A. J. Wheeler and myself) can be shown to be directly related to atomic and molecular

weights. Integrated values are also observable where compounds, solutions and mixtures are involved. But, so far as I know, no precise wavelength measurements on the primary high-frequency radiations have yet been made; only low-frequency "beats" and harmonics (*c.f.* the electro-encephalograms) being measurable, or else arbitrary dial and scale readings, that differentiate one substance from another in terms of the given radiation.

And though it is more or less comprehensible that some kind of photographic impression or short-lived radioactivity should be induced in solid substances–especially certain electro-chemically unstable materials, it is far more difficult to imagine how the *aqua potentia*, mentioned above, could possibly adopt a permanent or semi-permanent electromagnetic "charge" of a particular wave pattern and frequency. Yet, for instance, red and blue light rays, respectively, do appear to be able to cause some subtle change in water that is apparent to many human sensitives.

DR. ABRAMS AND HIS DISCOVERY

BY A.H.B.

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Many people have heard of Abrams and his box but have no idea who Abrams was or what is meant by his so-called box. A little book called *The Detection of Disease*, by Oscar Parkes, C.B.E., M.B., and Eric Perkins, M.R.C.S., L.R.C.P., both of whom studied under Dr. Abrams, contains an excellent account of the man and his work, and it is from the first part of this book by Dr. Perkins, who now practises Dr. Abrams' methods in this country, that most of the information in this note has been derived.

Albert Abrams was born in San Francisco in 1863. He qualified at a medical college before he was of age or could receive his diploma. He went to the University of Heidelberg, where, in 1882, he graduated again and with the highest possible honours. He spent many months doing post-graduate work in Heidelberg, Berlin, Paris, Vienna and London under such famous masters as Virchow, Frerichs, Wasserman and von Helmholtz, whose scientific influence must have affected the whole of his subsequent career, constantly urging him to endeavour to correlate the laws of Biology with the laws of Physics.

On returning to America he was appointed Demonstrator, then Professor, of Pathology and subsequently Director of Clinical Medicine at the Leland Stamford University of California. In 1893 he was elected President of the San Francisco Medico-Chirurgical Society and Vice-President of the Emanuel Polyclinic. He was the author of numerous important books on medical

subjects, and contributions by him were welcomed by leading medical journals throughout the world. He specialised in nervous diseases, and was for many years regarded as amongst the foremost neurologists of the day. He died in January, 1924, and within an hour of his death a cable was received inviting him to lecture on his recent discoveries at the Sorbonne in Paris.

Though a multi-millionaire by inheritance, Abrams' tastes were simple in the extreme. He was obsessed by his work of medical research, and bequeathed most of his fortune to an institution, the Blanche and Jean R. Abrams Memorial, where further research could be carried out and treatment given to the poor. Unfortunately, his will was disputed owing to a legal discrepancy, but a compromise was arrived at which enabled his wishes to be in some degree fulfilled.

Though possessing some of the eccentricities of genius, Abrams is described as one of the most generous and lovable of men, a magnetic personality, and a gentleman in the highest sense of the word. He was full of energy and enthusiasm, and worked unceasingly until he literally died of overwork.

So much for the man, and now for the system with which his name is always associated.

In these days of popular scientific literature it is common knowledge that all matter, including animal tissue, is composed of molecules, which themselves consist of atoms of the so-called elements such as oxygen, hydrogen, nitrogen and carbon, and that all atoms are made up of infinitely tiny particles of positive and negative electricity—a positive nucleus with, as it were, a system of negative wave-particles vibrating round it. All this belongs to the domain of chemistry, and as such had no direct connection with the diagnosis and cure of disease. True, the chemistry of our tissues is the concern of the bio-chemist; he can discover evidence of malignancy but can seldom say how the disease can be recognised in its earlier stages. The Bacteriologist can recognise germs if he can find them. The Pathologist is chiefly concerned with the examination of tissues by means of a microscope. The study of the atom as such does not lie within the purview of any of them.

The discovery of radium in 1898 opened up a new scientific era, for it revealed the astonishing fact that the elements were not immutable but that atoms of certain elements by the continuous emission of particles of positive and negative electricity spontaneously disintegrated into atoms of certain other elements; the theory of the electrical constitution of the atom, through the work of Röntgen, Becquerel, Crookes, the Curies, Thomson, Rutherford, Bragg and others, followed in due course.

Abrams was the first man to conceive the idea that disease was primarily a problem in which the atoms and molecules comprising the human tissues were concerned. He saw that

it was necessary to look deeper than the cell as revealed by the microscope and that, to use his own words, " the ultimate atomic divisibility of matter was represented by the electron and not by the cell."

He exploited the physicists' conception that all matter is constantly emitting radiation, conceiving that this radiation was as specific for human tissue as it was for matter in other forms, and that tissue, injured by disease, would emit a radiation differing from that of normal tissue ; in short, that every diseased and therefore abnormal atom or molecule would exhibit its own characteristic radiation.

Having determined to study disease on this basis, Dr. Abrams' first difficulty was actually to detect the radiations he wished to study. He had no doubt of their existence, but there was no instrument sufficiently delicate to meet his requirements. It is said that he hired a staff of electrical scientists to assist in his search, and, money being no object to him, he undertook to give a large reward to any man who could devise an instrument which would detect and differentiate between the radiation having its orgins in, for instance, the cancer, the syphilis, or the tubercule molecule respectively. However, despite claims by workers of the Abrams school, such as Starr White, Boyd and Wigelsworth, official recognition of such an instrument is not yet forthcoming.

Whilst his electrical experts were experimenting with a number of electrometers, voltmeters, amplifiers and galvanometers in various combinations, Abrams himself outstripped them all through a brilliant clinical observation, the starting point of twenty years of unremitting labour, which was terminated by his untimely death whilst still at work in his laboratory. This is how it happened.

He had been conducting investigations connected with the nerve mechanisms of the stomach, its contractibility in varying circumstances of health and disease, and its response to the stimulation of certain nerve trunks by mild electric currents.

Now, the outline of the stomach can be defined by what is called " percussion," that is to say, by tapping with the middle finger of the right hand on the middle finger of the left hand placed gently on the abdominal wall. Exceedingly delicate and skilled technique is needed to obtain accurate information from the varying changes in pitch and resonance which an expert can elicit in the difficult art of percussion, and Abrams was a past master in the art.

Many patients underwent examination by him, amongst them a middle-aged man, healthy enough to all appearance apart from a small chronic ulcer on his lip, known as epithelioma, a form of cancer.

The patient was asked to stand up whilst Abrams gently percussed over the upper part of his abdomen in an attempt to define the border of the stomach. Much to his surprise, Abrams found that several square inches of the man's abdomen, not exactly corresponding to the stomach area, sounded dull to his percussion instead of hollow, as a drum sounds hollow, and for the same reason—because air is behind it.

The patient was then told to lie down on a couch in another part of the room so that Abrams could " palpate " the abdominal wall, that is to say, feel for the possible presence of any kind of solid mass which might account for the dull percussion note he had just elicited. But he could detect nothing of the sort. More amazing was the fact that when Abrams percussed the man standing, still in that other part of the room, the note given out was still undeniably hollow or resonant.

Abrams returned again to his chair, placing the patient exactly where he had stood when the first observation was made. Again he percussed that area just above the navel, getting exactly the same result as he had at first—a dull note as if a bladder of lard had been substituted for the man's air-filled abdomen.

By this time Abrams was aflame. He knew he could trust his percussion technique, and he was absolutely sure that, in this patient's case, the note elicited *when the patient was facing in one direction differed entirely from that produced when the patient was facing in another direction.* Time after time he percussed his unfortunate patient, facing him in various directions, and the result of that long afternoon's work was to establish beyond reasonable doubt the astounding fact that the patient with the cancerous ulcer on his lip had a well-defined area on his abdominal wall which sounded dull to percussion when he faced west,* but sounded normal, that is, hollow, when he faced in any other direction.

The phenomenon which Abrams that day discovered was subsequently called by him an " Electronic Reaction," but that was after several years of prolonged and laborious research.

The patient was told to present himself for further work next day, when the first observation was repeated and verified, and an additional one made. A second area, quite dull to percussion, when the patient stood facing west, was found over the region of the inner border of the man's left shoulder blade though no auscultation of the chest revealed any abnormality. Many other non-cancerous patients were examined that morning, but none of them revealed those two strange patches of dullness. A search was made for sufferers from cancer in its early stages in various wards and dispensaries, and some were found. In

* *i.e.*, at right angles to the horizontal component of the earth's magnetic field.

each case Abrams was able to satisfy himself of the existence of the same two dull areas, one just above the navel and the other over the inner border of the left scapula.

After days of painstaking observations on scores of patients Abrams at last allowed himself to entertain the notion that some kind of radiation, originating in the doubtless abnormal and characteristic molecules which formed each cancer cell, might be picked up by certain definite groups of nerve fibres, and that these nerve fibres caused a reflex muscular contraction, detectable by percussion, to occur on the patient's abdominal wall and thorax—on the analogy of the wave frequencies picked up by fibres of the optic nerve, which caused a muscular contraction of the pupil. The fading effect which invariably occurred when the patient was facing north or south might, he thought, be due to some deflection of the waves by the earth's magnetic field. For Abrams had been a pupil of Helmholtz; he knew vastly more about physics than the average doctor and was aware that, in a fashion, atoms and molecules might be regarded as broadcasting stations emitting electromagnetic waves, each type of atom sending out its own characteristic wave.

Having conceived this notion, Abrams carried out a long series of experiments. Satisfied that the mysterious percussion phenomena which undoubtedly occurred on the abdomen and thorax of every patient suffering from cancer were reflex phenomena resulting from faint stimuli caused by specific radiations originating in the molecules of the cancer mass, it occurred to him to ascertain whether any similar reflex could be detected on the same areas of the body of a *healthy* young man when in close contact with a cancer specimen from the operating theatre.

For this apparently fantastic experiment he chose the healthiest young fellow he could find among his class of students. To begin with, he made the boy stand facing west, and percussed carefully the area of the abdomen just above the navel, and, as he expected, elicited a clear and ringing note. Then a small fragment of a malignant tumour just cut from a patient, and placed in a metal container, was applied to the boy's forehead. Within two seconds the percussion note dulled slightly and rapidly became as entirely dull as if the boy had been transformed into a plaster cast. When the boy was facing north the resonance returned; when again facing west the dull note recurred; when the cancer specimen was removed the percussion note again became normal, that is, hollow sounding.

From this striking and epoch-making experiment, opening up as it did a new expanse of hitherto inconceivable possibilities from both the physical and medical point of view, Abrams felt justified in believing that the phenomenon observed on the nerve-muscle apparatus of the boy who was the subject of the experiment was a reflex response to the stimulus originating within

the molecules of the cancer mass. He eventually named the phenomenon a " Reaction " and the boy came to be known as the " Subject " or " Reagent."

The experiment was repeated and verified thousands of times, not only by Abrams, but by a band of enthusiastic followers, including, in this country, Sir James Barr, a past President of the B.M.A., who described Abrams as by far the greatest genius the medical profession had produced for half a century.

Abrams then decided to find out whether the suspected radiation from the cancer specimen would pass along a wire and produce the reaction. To this end he got a six-foot length of ordinary copper flex wire, one end of which was soldered to a small disc of aluminium, and the other to a large disc mounted on an insulated handle. The small disc (or electrode) was fastened by an elastic band to the Subject's forehead, the handle of the larger disc (or electrode) being held by an assistant who was placed, with the cancer specimen, behind a screen, where neither Abrams nor the Subject could see him or be sub-consciously influenced by his movements. The assistant was told to point his electrode towards the ceiling until he (Abrams) had demonstrated the clear ringing percussion note on the Subject's abdomen, then to bring the electrode to a position immediately above the cancer specimen, after a few seconds remove it, then replace it, and so on. The experiment was a complete success! The percussion note changed from hollow to dull every time the hidden assistant brought the electrode near the specimen.

In his next experiment Abrams replaced the excised cancerous tumour with two female patients, one with an abscess on the breast, and the other with a breast cancer. The reaction did not occur when the disc was pointed towards the abscess, but did occur exactly as before when held in front of the cancerous breast.

Thus was made the first diagnosis by the Electronic Reactions of Abrams, known in short as E.R.A.

After this, Abrams naturally turned his thoughts to the possible existence of other pathological reactions, and he set out to attempt to discover a reaction on the Subject's abdomen under the two following conditions :—

(*a*) When the disc at the end of the six-foot wire flex was fixed to the Subject's forehead and the other electrode was placed in close contact with a *tubercular* specimen.

(*b*) When this electrode was held immediately in front of a tubercular centre on some part of a living patient's body.

The Subject, stripped to the waist, was stood facing west, the electrode was placed by an assistant over a tubercular specimen. Abrams, as before, percussed over the area immediately above the navel, but the note now remained resonant, as the normal note should be. Abrams continued to percuss, trying other areas, and he quickly found a dull patch this time about one inch

below the navel. He repeated the experiment over and over again with different pathological specimens of tubercular material and always with the same result.

He then tried the experiment when the electrode was applied to the chest of a man with obvious symptoms of pulmonary tuberculosis—again with the same result.

From his next experiment he found that an area existed about an inch to the left of the navel which responded to streptococcal infection, whilst an area characteristic of malaria was a little patch about two inches below and two inches to the left of the Subject's navel, the observation being made first from a sample of malarial infected tissue and then from a malarial patient, when the electrode was placed over the spleen or over the liver.

In trying to find the characteristic "diagnostic areas" for syphilis and sarcoma, Abrams was temporarily baffled, as he found that in each case the dull patch was identical with the cancer diagnostic area. But Abrams was a man of great determination and infinite perseverance, and one day an inspiration came to him. It was the outline of his hypothesis that the reactions were caused by electro-magnetic waves of different frequencies and that these waves were characteristic of the molecules from which they were derived. Thus he conceived the idea of an adjustable instrument interposed between the specimen and the Subject—as a very rough analogy like a long brick wall with a number of doors in it, each door corresponding to a particular wave through which that wave alone could pass whilst the door was open.

An ordinary rheostat had something of this "wall and door" effect, and he had an old resistance box ready to hand possessing 61 different resistances, which could be put in circuit by means of a pointer. Abrams cut his six-foot wire in two; the ends of one three-foot length were fastened to an electrode and a terminal of the rheostat respectively; one end of the second length was fastened to the other terminal, the other end being attached to the Subject's forehead. The assistant placed his electrode over the cancer specimen and the pointer of the reheostat was set at a certain resistance stud, chosen haphazard.

Abrams percussed the Subject's cancer diagnostic area and was delighted to find that no reaction occurred. He then told the assistant to "twiddle the knobs about" with his free hand. After a time he cried out "Stop!" The pointer of the rheostat was at stud 50, and the old familiar "reaction" dullness had appeared. It was lost on 49 and 51, but came through faintly on 30. In other words, the cancer wave had squeezed through door No. 30, but had passed easily through "door," or stud, No. 50, when the reaction was as definite as it was without the rheostat.

With some anxiety Abrams tried a sarcoma specimen which,

without the rheostat, had given the same reaction as cancer. The assistant turned the pointer from one resistance to another, and after many anxious moments the Subject developed a reaction. Sarcoma had come through on 58, and it came through on that number alone—NOT on "50" and NOT on "30"! And it was found that syphilis came through on 55 only—not on 50, and not on 58.

Through years of patient toil Abrams compiled a book known as "The Atlas," in which were charted the diagnostic areas and their appropriate dial settings on a type of rheostat which Abrams devised for the purpose.

This simple rheostat which Abrams called in its new connection a "Reflexophone" (now believed to function as a variable inductance) is the instrument about which—under the name of the Magic Box—so much nonsense has been written by the ignorant and sceptical.

In the course of time Abrams adopted several devices which made the reactions more definite. For instance, the dull note indicating a reaction was sensibly increased if the Subject was made to stand on earthed metal plates; he found that if the reaction area was lightly stroked with a glass or vulcanite rod, the latter seemed to drag slightly when a reaction was present and slip along more easily when the reaction was abolished; he also found that reactions were more pronounced when he worked in a darkened room; again, some of the reactions were increased or diminished by approaching one or other pole of a powerful bar magnet to the specimen under examination. The reactions were more definite if the specimen under examination was placed in a vulcanite container within which was an earthed metal electrode, the lid being a condenser formed of three-inch discs of aluminium and mica. This receptacle he called a "dynamiser."

For years Abrams continued to make additions to his Atlas from observations on patients and from specimens. His life's task was to discover a method of detecting the often abstruse causes of conditions which do not in their earlier stages produce gross changes in tissue with recognisable physical signs—in other words, he was striving to anticipate disease, *i.e.*, to detect disease in its earliest beginnings, before gross structural damage (on the evidence of which present-day clinical diagnoses chiefly depend) had even begun to occur.

He had no desire to displace the orthodox methods of diagnosis, but when these failed to solve his problem he supplemented them by the use of the Electronic Reactions, thereby gaining additional and confirmatory information which could be obtained by no other means.

Abrams made a notable step forward when he discovered that a single drop of blood was sufficient to produce the reactions

indicative of the disease suffered by the patient from whom the blood had been taken. He was prompted to this experiment by the consideration that if, as stated by physicists, 18 grammes of water contained 606 x 10^{21} (six hundred and six thousand million billion) molecules, surely a single drop of blood must contain a vast number derived from the focus of disease through which the blood is continually passing; and if the disease were tubercular or malarial, a drop of blood would contain even more, and such molecules would all be giving off their characteristic radiation. Could these radiations be detected—and identified?

Abrams took a drop of blood from a cancerous, a tubercular and a syphilitic patient, and in each case the characteristic reaction was clear and definite. So far, then, Abrams' triumph was complete.

A further discovery of fundamental importance made by Abrams was that every substance or drug revealed a specific radiation in the same manner as a specimen of diseased tissue. Thus he found that there was a reaction from quinine and that it was identical with that caused by a blood specimen from a malarial patient, also that the reaction from mercury was identical with that due to syphilis.

When the drug and the diseased specimen were tested together, no reaction at all was apparent, in other words, the effects had cancelled each other, or, in the language of physics, the radiations had "interfered."

It may be noted that this phenomenon of the transmission of the specific effect of drugs is an important feature of L. E. Eeman's healing circuit.

* * * * *

On May 23rd, 1922, an experiment was carried out in London to test the truth of this extraordinary discovery. Dr. C. B. Heald, Medical Adviser to the Director of Civil Aviation, Major H. P. T. Lefroy, Head of Wireless Research at the Air Ministry, and Lieut.-Colonel Tizzard, brought four specimens of blood to be tested by Dr. Mather Thomson, one of Dr. Abrams' students and followers. He had been assured that all four specmens were pathological. The instruments used were similar to Abrams', and Dr. Heald acted as the Subject. Three specimens were correctly diagnosed as syphilis and cancer, and one healthy one which had been provided by Dr. Heald himself; the fourth, diabetic, was diagnosed as tubercular, which was possibly correct, as the diabetes may have been, and probably was, due to a tuberculous lesion of the pancreas.

* * * * *

Abrams later on developed an addition to his original diagnostic rheostat in the shape of an instrument which enabled him to judge of the severity of any infection. It was a kind of volume control. If the disease were severe it would, so to speak, force

its way through a resistance showing a higher reading than if the disease were in a mild stage. Blood from a patient in a pre-cancerous stage might produce an unmistakable reaction through showing a low reading on the dial. Even cancer has to have a beginning; there must be a cause behind the formation of the first pathological cell, and Abrams believed that this cause had to be sought in the atoms which make up the cell. "Regard cancer not so much as a structure, but as a *process*," said Abrams. He further believed that if cancer could be detected before physical signs were apparent, that is to say, before diagnosis by so-called orthodox methods were conceivable, before any tell-tale tumour-mass or "lump" had formed, it should be possible to devise a non-surgical method of treatment and cure. Holding that the beginning of disease was a disturbance of electronic equilibrium within the molecule, he sought a means for restoring the lost equilibrium. To this end was evolved his treatment instrument, the "Oscilloclast."

The man primarily responsible for the production of the oscilloclast was Hoffman, the inventor of the Zeppelin detector. It was designed to embody Abrams' requirements, to wit, the neutralisation of the waves issuing from the diseased tissues as shown by the blood reaction obtained on the "Subject" *via* the Reflexophone—by restoring the electronic balance.

Briefly, the original oscilloclast, which could be used either with direct or alternating current, consisted of two main parts, (1) a box containing an electric motor connected to the external electric main, and an arrangement of coils, and (2) a dial-pattern resistance box with ten resistances varying from 100 to 1,000 (numbered 1 to 10) from which a single lead could be taken to the patient. By means of a pendulum attached to the armature the magnets of the motor were energised at regular intervals, connection with the resistance box being made once during each period of energisation.

An arrangement of coils was connected in parallel with the lead between the motor and the resistance box.

The action of the oscilloclast, as reported on by Professor Taylor-Jones, Dean of the Faculty of Physics at Bangor University, may be summarised as follows:

(1) The patient (who is insulated from the ground) is subjected 200 times a minute to an electrical impulse from the negative main,* which would impart a certain amount of negative electricity to his person, making his voltage with ordinary good insulation about 170 (that of the mains being about 200).

(2) Shortly after every alternate electrical impulse another impulse of electro-magnetic origin is produced in the apparatus and transmitted to the patient. The intensity of these impulses

* Presumably this occurs only when D.C. is used.—A.H.B.

varies with the resistance in series on the lead, being least when contact is at 0 and greatest when at 10.

(3) An electrical oscillation is produced in the apparatus about 100 times a minute, of a frequency of about six million, corresponding to a wave-length of 50 metres.

The patient was insulated from the ground and the electrode attached to the lead from the resistance box was applied to the seat of the disease. Treatment was given for about an hour a day over a varying period of time, the resistance being varied according to the nature of the disease. If the diagnosis had yielded more than one reaction it was usual to give treatment with the appropriate resistances successively. Intermediate grades of resistance were obtained by inserting an extra rheostat in series, with the main one. Treatment was continued until no reactions were elicited from a blood specimen under diagnosis.

Such in outline was Abrams' system of diagnosis and treatment —*diagnosis* with the reflexophone through the agency of a healthy Subject, and *treatment* with the oscilloclast direct to the patient.

* * * * *

Abrams has many followers in America and Europe, and his instruments have been developed and modified at the hands of various operators. There are schools in America at which instruction in E.R.A. is given, and there is an American Electronic Research Association which issues a monthly journal.

For some years an Abrams Society existed in England under the presidency of Dr. Mather Thomson. This has now been replaced by a medical Society, with a wider scope, for the study of Radiesthesia from all angles. The first president was Dr. Ernest Martin, and the present one is Dr. T. T. B. Watson.

Abrams died in harness in January, 1924. During his life, and more so after his death, he was subjected to much detraction and abuse, as are all originators of unusual ideas and methods. To begin with, he was a Jew; he charged high fees and sold his instruments at high prices; but what he gained was for the most part devoted to a charitable end. Apart from the utterly novel lines of his investigation, many of his experiments and claims were regarded as fantastic. For instance, his treatment with gamboge, his claim to distinguish sex and to be able to diagnose from a specimen of handwriting. Yet we dowsers now know that sex is readily distinguishable in terms of the electro-magnetic polarity of body organs and limbs, and perhaps also through the effect of sex hormones, and that paper which has been in contact with a human being can act as a "sample," whilst treatment by colour is now quite usual. But perhaps his greatest fault in the eyes of his detractors was that, by using methods which outraged all medical tradition, he achieved undoubted success.

* * * * *

In 1924 an investigation on E.R.A. was conducted in this

country by a Committee consisting of two doctors and three scientists under the chairmanship of (then) Sir Thomas Horder. Their Report was read before the Royal Society of Medicine on January 16th, 1925, and it was subsequently published under the title, *A Preliminary Communication concerning the Electronic Reactions of Abrams, with special reference to the Emanometer Technique of Boyd.*

It should be explained that Dr. W. E. Boyd, M.D., of Glasgow, is a follower of Abrams, and that his Emanometer is a development of the Reflexophone. Dr. Boyd, of course, has to make use of a human "subject" facing west, and the reactions he obtains are those charted by Abrams.

The avowed object of the investigation was "to determine as conclusively as might be practicable whether there be any valid basis for the claims put forward in respect of the so-called 'Electronic Reactions' of Abrams or of any analogous technique allied thereto or developed therefrom."

The members of the Committee were M. D. Hart, A.M.I.C.E., M.Sc., D.I.C., Dr. C. B. Heald, C.B.E., M.D., M.R.C.P., Lieut.-Colonel H. P. T. Lefroy, D.S.O., M.C., A.M.I.E.E. (now B.S.D.), W. Whately Smith (now Carington), M.Sc.

Mr. Hart and Mr. Whately Smith were engaged on physical research work on behalf of the War Office and Air Ministry respectively. Dr. Heald and Lieut.-Colonel Lefroy have already been referred to as having conducted a test with blood specimens.

It is stated in the Introduction that the inquiry was limited to the diagnostic aspects of the technique and that the conclusions arrived at apply solely to the Reflexophone of Abrams and to Dr. Boyd's Emanometer. The instrument, however, appears to differ from Abrams' Reflexophone in several important respects; in fact, it is stated that it "appears actually to be a design *de novo* based on a different conception of the phenomena involved." However that may be, the use of a normal human being as a Subject on whom abdominal percussion was carried out was the same. An outstanding feature of the Boyd apparatus was the use of earthed metallic screens made of sheet copper or of copper gauze intended to eliminate contamination from external sources.

After a number of preliminary tests and experiments it was decided "to rely exclusively on tests of such a character that the value of the results obtained could be unequivocally computed by mathematical methods." To this end certain crucial tests were carried out (under strict control) by Mr. Whately Smith on June 6th, 1924, in Dr. Boyd's laboratory at Glasgow.

The first test consisted in discriminating between two apparently identical substances indistinguishable by normal means. Of 25 successive trials, all were successful. The chance of this result being obtained by accident is 1 in 33,554,432!

The second and third tests involved the selection and identification of one specific substance from among a number of others. Both were completely successful. The chances of accidental results were 1 in 180 and 1 in 7,776 respectively.

The fourth test was a repetition of the first. The operator gave 18 correct replies out of 20 trials; the two errors were probably due to faulty manipulation by the experimenter. Even if this possibility be ignored the chance of an accidental result is 1 in 5,518.

The fifth and last test was one in which a specimen could be cut off by a movable screen from the receiving plate of the apparatus. All of 16 trials were successful. The chance of this being due to accident is 1 in 65,536.

It was clear from the figures that the results could not be ascribed to the operation of chance alone; the only alternative explanation to accepting the phenomenon as genuine was to assume that Mr. Whately Smith had failed in accuracy or had been imposed on by trickery. The experiments were therefore repeated before Mr. E. J. Dingwall, M.A., the research officer to the Society for Psychical Research, who had made a special study of methods of deception. The tests witnessed by him were substantially the same as those carried out by Mr. Whately Smith and the degree of success was equally impressive.

Sir Thomas Horder and Dr. Heald each acted as Subject and operator during the tests, and when acting in the first capacity could definitely feel an alteration in their abdominal muscles as specimens were inserted or withdrawn without their knowledge.

Amongst the conclusions arrived at by the Committee was the following:—

> ". . . . that the fundamental proposition underlying, in common, the original and certain other forms of apparatus devised for the purpose of eliciting the so-called Electronic Reactions of Abrams is established to a very high degree of probability . . ." and "that no evidence justifying this deduction is yet available from the work of those who practise with the apparatus as designed by Abrams himself."

It is emphasised in the report that the conclusions "are not in the slightest degree pertinent to the diagnosis or treatment of disease in any practical sense."

In view of the enormous amount of evidence available in America it is legitimate to doubt the validity of the second conclusion quoted above, and one cannot help wondering why the experiments were not carried a little further so as to show their pertinence to medical diagnosis—as might well have been done. Two members of the Committee had already witnessed the efficacy of Abrams' Reflexophone in connection with blood specimens. Why should not further experiments have been carried out on the same lines? In the Foreword it is stated

that the Communication is preliminary and "that the work must be continued and that the nature, significance and the practical application of the facts here brought to light must be studied fully."

This does not appear to have been done—at any rate by the Committee—and over twenty long years have passed by!

* * * * *

It is a contrast to turn from this Communication, generally known as "The Horder Report," with its undercurrent of critical distrust, to a book called *Abrams' Methods of Diagnosis and Treatment.* It was edited by the late Sir James Barr, C.B.E., D.L., F.R.S.E., LL.D., M.D., F.R.C.P., one of those broadminded and enlightened men who took full advantage of Abrams' wonderful discoveries. In his Foreword he criticises very adversely the Horder Report, especially for "the reflection cast upon the honour of Abrams' practitioners . . . . in a statement, in support of which no evidence could be brought, that they were 'ethically unjustified' in helping the sick by the use of Abrams' methods." The book contains an appreciation of Abrams and a description of his methods, after which the author gives records of a number of cases in which the treatment was used, viz.: eight of Tuberculosis, ten of Cancer, four of Exopthalmic Goitre, three of Chronic Colitis, nine of Arthritis, three of High Blood Pressure, three of Duodenal Ulcer, and thirty-eight miscellaneous cases. All had been treated by the oscilloclast with good results, but in two cases of cancer the patient had died after having experienced considerable relief. Many of the cures are of a most striking nature; there is one labelled "Undiagnosed," about a woman of twenty who had suffered for nearly a year "from prolonged and severe attacks of pain in the head and ear following an acute febrile attack of an influenzal character." She had been seen by more than 30 specialists; she had been given morphine and heroin, had a wisdom tooth and neighbouring molar extracted, been given mercurial injections and potassium iodide internally, had leeches applied over the mastoid, Arnold's nerve excised, received diathermic, deep X-ray and radiant heat treatment. Being no better, she decided to try Abrams' treatment, though exceedingly sceptical of the result. It was begun on January 7th, 1924, and by October 15th she was quite well.

The book ends with the report by Professor E. Taylor-Jones on the electrical properties of the oscilloclast, already referred to.

* * * * *

Of a rather different type is a little book called *The Abrams Treatment, an Investigation,* by G. Laughton Scott, M.R.C.S., L.R.C.P., B.A. It may be epitomised as a grudging and cautious recognition of the value of Abrams' treatment. Forty-five cases selected from the work of three practitioners (including Sir James Barr) and nine experimental cases undertaken by the author

are reviewed. In his conclusion he states that " he is unable to avoid the conclusion that the instrument exercises in favourable cases an exceedingly powerful influence on general health, which in the treatment of particular diseases may be, and frequently has been, very useful."

In an Appendix there is a report on the oscilloclast with a diagram, by Mr. A. S. E. Ackerman, A.M.I.C.E., and Mr. William Clark, A.M.I.E.E., the result of an examination of an instrument made in October, 1924. It differs essentially from the report of Professor Taylor-Jones which was dated April, 1925, in that no mention is made of the impulse of electro-magnetic origin and the electrical oscillation which Professor Taylor-Jones has carefully recorded.

However, all this is ancient history. Knowledge of electric wave action has increased enormously during the last twenty years, and to-day there is probably no question regarding the oscillatory effect which is the keynote of Abrams' treatment.

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NOTES AND NEWS

The first (February) number of a new magazine called *Feature*, published in Dublin, contains an opening article entitled " The Amazing Mr. Bennett." In it is given an account of the remarkable dowser, Mr. J. H. Bennett (B.S.D.), with several illustrations showing his method of working. He normally uses rods made of ashplant, and employs his powers not only for finding water but for testing the health of human beings and animals, prescribing diets, discriminating sex and tracing missing people. He is a strong believer in the value of dowsing on maps, for which purpose he uses a small metal pendulum. Mr. Bennett is a farmer and is sixty years of age.

* * * * *

The following interesting passage occurs in a letter recently received from Herr Georg Bittel, who has fortunately survived the late régime in Germany :—

" Dowsing was forbidden in Germany ; a scientific commission of inquiry was set up by the Nazi Government, with the result that dowsing was judged to be a form of swindling and was accordingly forbidden."

A letter entitled "Some water divining in Algeria" appeared in *Nature* of March 9th from a correspondent who in Algeria, 1943-44, had opportunities of recording forecasts by three diviners, two being French civilians and one an enthusiastic British officer, and, later, the detailed results obtained while sinking wells on eighteen of their sites. Sixteen of the sites had been selected by the British officer and one each by the French civilians, and all the forecasts proved to be fallacious. Further, one of the French civilians stated that water would not be found at a spot, selected on geological grounds, where a supply of 850 g.p.h. was obtained at a depth of 235-240 feet.

It is not stated in the letter whether the competence of the dowsers concerned had been investigated beforehand.

* * * * *

As reported in *The Times* of April 16th, in an application by Mr. George Stafford against the confirmation by the Minister of Health of a compulsory purchase order, by which the Rural District Council of Market Harborough sought to acquire, for housing, land which formed part of the appellant's farm, it was stated by Mr. H. A. Hill, who appeared for the appellant, that the Minister had taken a statement from the Council that a water diviner had advised them that water would be obtainable on the land.

* * * * *

In the *New Zealand Herald* of April 7th there was a reference to a meeting of the Newmarket (Auckland) Borough Council at which the serious shortage of water was discussed, with the result that the Town Clerk was instructed to enquire into the cost of securing a diviner to investigate the Borough.

Mr. George (B.S.D.), writing from Auckland, encloses a cutting from a March copy of *Truth* describing how Mr. R. Livingston, a water diviner of Takanini, Auckland, had approached the Geographical Survey Office, but, in spite of the urgent need of water, had received a reply of the type usually given by a Government Department.

Following the meeting of the Newmarket Borough Council, Mr. George, Mr. Livingston, and Mr. Bird, a mining engineer and diviner, accompanied by a Councillor, had made a tour of the Borough and had satisfied themselves that water was obtainable.

* * * * *

Mr. Busby writes as follows from Cowra, New South Wales:—

I have observed that every tree of any distinct variety appears to have a peculiar connection with others of the same variety though not with others of the same genus. For example: members of a specific variety of eucalypt do not have this "line of communication" with other varieties of eucalypt. This "line of communication" can be easily traced with a rod, particularly the angle rod type, even over a considerable distance. I have traced

them for several hundreds of yards when certain specimens were growing at that distance apart. This connection, of whatever nature it may be, appears to carry through the ground, as trees grown in tubs which are not in direct touch with the ground do not appear to have this connection. What influence, if any, one tree may have upon the growth of another within its area of communication it would be difficult to say without prolonged observation. A forester may have noted some such influence when, for instance, two trees of a similar variety have been growing within a certain distance from one another and one of them dies or is killed.

Possibly, some reader has tried the 45-degree angle idea to ascertain the height of a tree by taking a leaf of the tree and walking out from it, holding the leaf and a rod, until a line is indicated by the rod. If I remember correctly, I suggested this method in an article published in the *B.S.D. Journal* some years ago. By walking still further out from the 45-degree line, other lines will be noted, and that different kinds have different numbers of lines, *e.g.*, eucalypts appear to have four, acacias eight, cypress twelve, pears sixteen, citrus twenty. I have not made any very exhaustive examination of these variations, but they all appear to be in multiples of four. These few observations may be of interest to readers, who may possibly try them out for themselves. I have no suggestions to offer as to what these lines are, or what influence various trees exert sufficiently strong to enable one to define a series of concentric rings about them and extending well away from them. The concentric lines referred to are not the " lines of communication " mentioned above.

* * * * *

An allusion to the use of the divining rod in A.D. 1071 occurs in the well-known book *Hereward the Wake*, by Charles Kingsley.

Hereward, who with his followers is holding out in his stronghold in the Fens, realises that the Normans cannot be opposed effectively without iron. " But where was the iron to come from ? Iron for catapult springs, iron for ramheads, iron for bolts and bars ? "

" Torfrida," said Hereward, " you are wise. Can you use the divining rod ? "

" Why, my knight ? "

" Because there might be iron-ore in the woods, and if you could find it by the rod, we might get it up and smelt it."

" Torfrida said humbly that she would try ; and walked with the divining rod between her pretty fingers for many a mile in wood and wold, wherever the ground looked red and rusty. But she never found any iron."

One wonders whether there is any recorded evidence of the use of the divining rod in Saxon times on which Charles Kingsley may have drawn in writing the above passage.

LETTERS TO THE EDITOR

Inter-Service Publications Unit,
G.H.Q., M.E.,
19*th February*, 1946

Dear Colonel Bell,

I should be most interested to know if any member has done any recent experiments in the detection of auras by fluorescent screens or other means. Should this be the case, perhaps they would not mind getting in touch with me at the above address, and I will make a point of getting into contact with them on my forthcoming visit to England.

Apart from this, I am engaged in completing the second revision of the Bibliography of Atlantis and Other Sunken Lands. As it is most difficult to keep track, especially out here, of minor publications treating with this subject, I should much appreciate it if any member who may be interested in it would give me the opportunity of meeting him to check up lists of references.

I must apologise for trespassing on the limited space of the *Journal* with my requests, but it is five years since I set foot in England, and I am very much at a loss as to where to apply for this information.

Yours sincerely,
EGERTON SYKES

---

35 Downside Crescent,
Belsize Park, N.W.3.
March 18*th*, 1946

Dear Colonel Bell,

While thanking your contributor for his very kind review of my little book on Radiesthesia, may I correct one small misunderstanding? I did not intend by my examples of mummified meat and fish to try to prove that the healing gift is purely physical, but, on the contrary, to show that it is not purely psychic, or the result of suggestion acting upon the imagination of the subject. I think all these aspects should be considered and given their due weight in any scientific analysis of such a complex subject as healing by human radiation. Since the book was finished, in the summer of 1944, I have done a great deal of experimental and curative work, and I am as far from finding a comprehensive and satisfactory theory as ever. I am still a learner, and grateful for any fresh light that can be thrown upon the subject by doctor and dowser.

Yours sincerely,
J. T. KINGSLEY TARPEY

END OF VOLUME VI

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